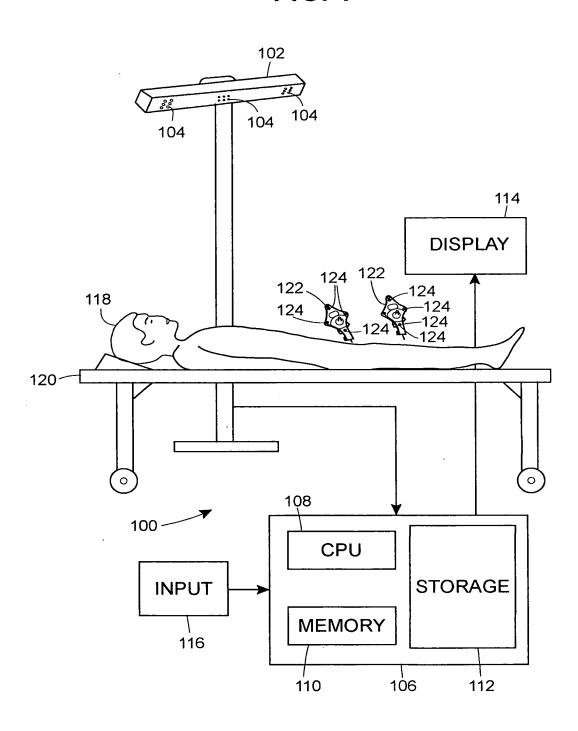McCracken & Frank LLP    (312) 263-4700
Inventors:  Moctezuma de la Barrera
Docket No.:  29997/061
Title:  "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 1
Sheet 1 of 14
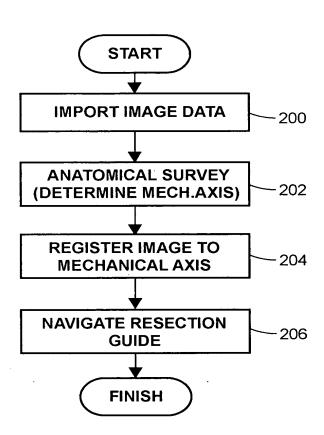
# FIG. 1

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Title:  "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 2
Sheet 2 of 14

# FIG. 2

START

IMPORT IMAGE DATA ——200

ANATOMICAL SURVEY
(DETERMINE MECH.AXIS) ——202

REGISTER IMAGE TO
MECHANICAL AXIS ——204
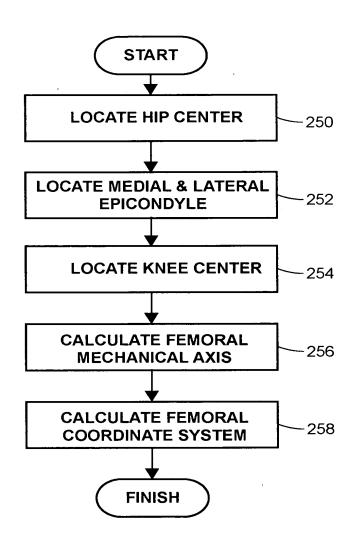
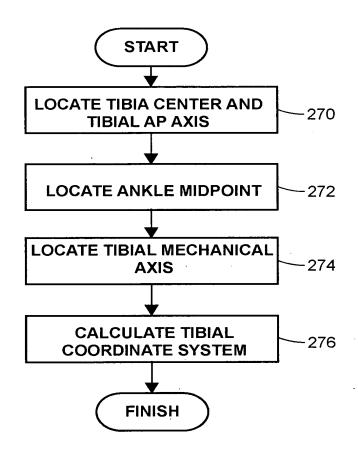NAVIGATE RESECTION
GUIDE ——206

FINISH

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Docket No.:  29997/061
Title:  "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 3
Sheet 3 of 14

# FIG. 3

```
        ┌─────────────┐
        │    START    │
        └─────────────┘
               │
               ▼
   ┌─────────────────────────┐
   │    LOCATE HIP CENTER     │──── 250
   └─────────────────────────┘
               │
               ▼
   ┌─────────────────────────┐
   │ LOCATE MEDIAL & LATERAL  │──── 252
   │       EPICONDYLE         │
   └─────────────────────────┘
               │
               ▼
   ┌─────────────────────────┐
   │    LOCATE KNEE CENTER    │──── 254
   └─────────────────────────┘
               │
               ▼
   ┌─────────────────────────┐
   │    CALCULATE FEMORAL     │──── 256
   │    MECHANICAL AXIS       │
   └─────────────────────────┘
               │
               ▼
   ┌─────────────────────────┐
   │    CALCULATE FEMORAL     │──── 258
   │   COORDINATE SYSTEM      │
   └─────────────────────────┘
               │
               ▼
        ┌─────────────┐
        │   FINISH    │
        └─────────────┘
```
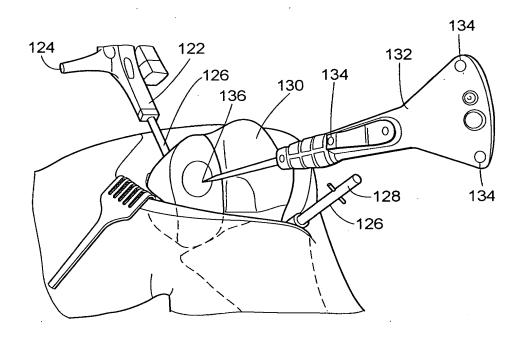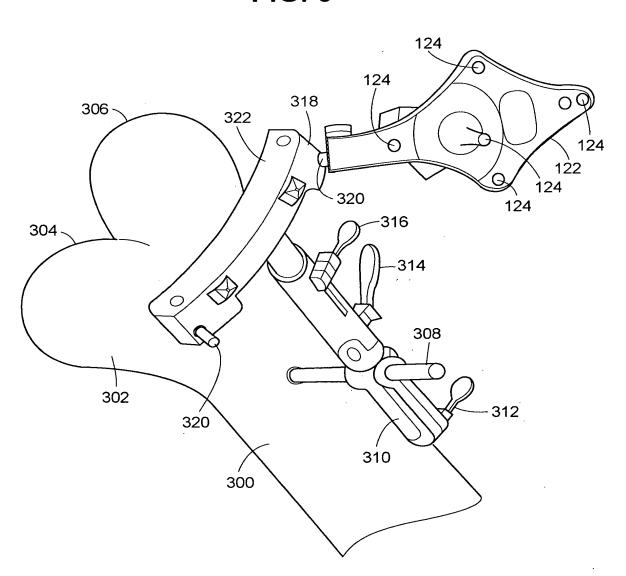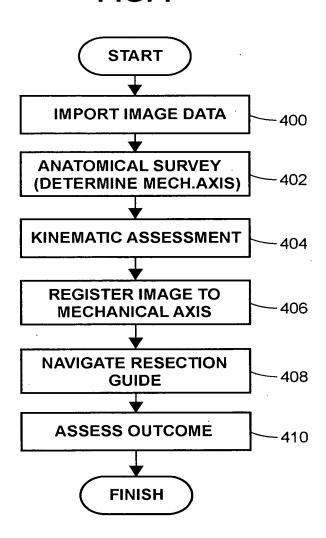
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Docket No.: 29997/061
Title: "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 4
Sheet 4 of 14

# FIG. 4

```
                    ┌─────────────┐
                    │    START    │
                    └─────────────┘
                           │
                           ▼
          ┌──────────────────────────────┐
          │  LOCATE TIBIA CENTER AND      │──── 270
          │      TIBIAL AP AXIS           │
          └──────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────┐
          │    LOCATE ANKLE MIDPOINT      │──── 272
          └──────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────┐
          │  LOCATE TIBIAL MECHANICAL     │──── 274
          │           AXIS                │
          └──────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────┐
          │     CALCULATE TIBIAL          │──── 276
          │   COORDINATE SYSTEM           │
          └──────────────────────────────┘
                           │
                           ▼
                    ┌─────────────┐
                    │   FINISH    │
                    └─────────────┘
```
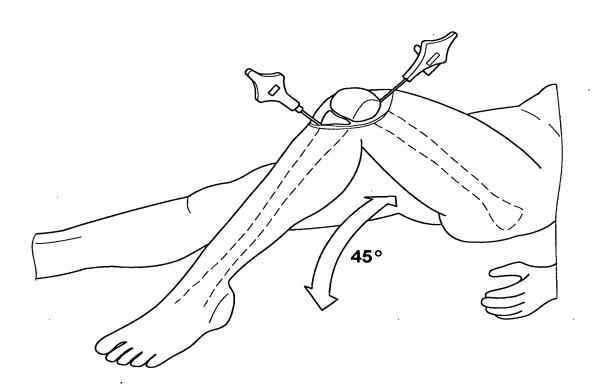
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Title: "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 5
Sheet 5 of 14

# FIG. 5

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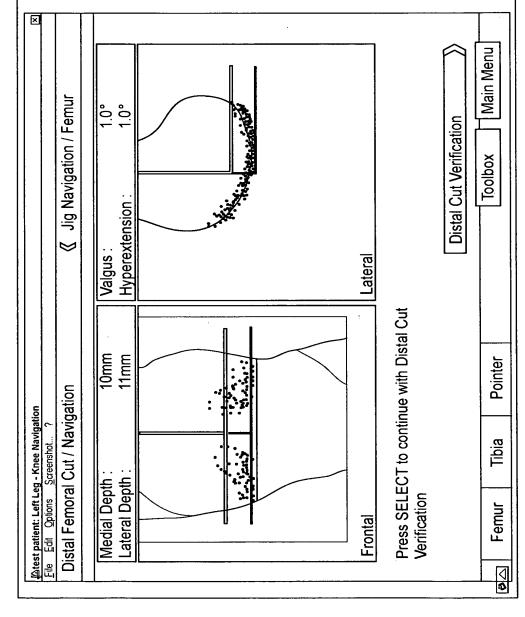Data to Intra-Operatively Digitized Landmarks"
Fig. 6
Sheet 6 of 14

# FIG. 6

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Title:  "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 7
Sheet 7 of 14

# FIG. 7

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Title: "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 8
Sheet 8 of 14

# FIG. 8

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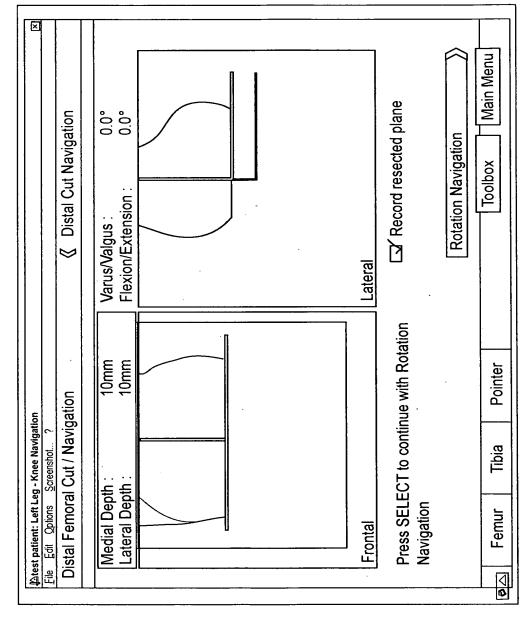Data to Intra-Operatively Digitized Landmarks"
Fig. 9
Sheet 9 of 14

# FIG. 9

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Docket No.:  29997/061
Title:  "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 10
Sheet 10 of 14

**FIG. 10**

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Title:  "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 11
Sheet 11 of 14

# FIG. 11

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Title: "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 12
Sheet 12 of 14

# FIG. 12

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Docket No.: 29997/061
Title: "System and Method of Registering Image
Data to Intra-Operatively Digitized Landmarks"
Fig. 13
Sheet 13 of 14

# FIG. 13

**test patient: Left Leg - Knee Navigation**

File   Edit   Options   Screenshot.... ?

Proximal Tibial Cut / Navigation

《 Jig Navigation / Tiba

Medial Depth :        -1mm
Lateral Depth :        1mm

Varus :                0.5°
Ant./Post. Slope :     0.0°

Frontal

Lateral

Cut Verificationation

Press SELECT to continue with Cut Verification

Femur    Tibia    Pointer    Toolbox    Main Menu

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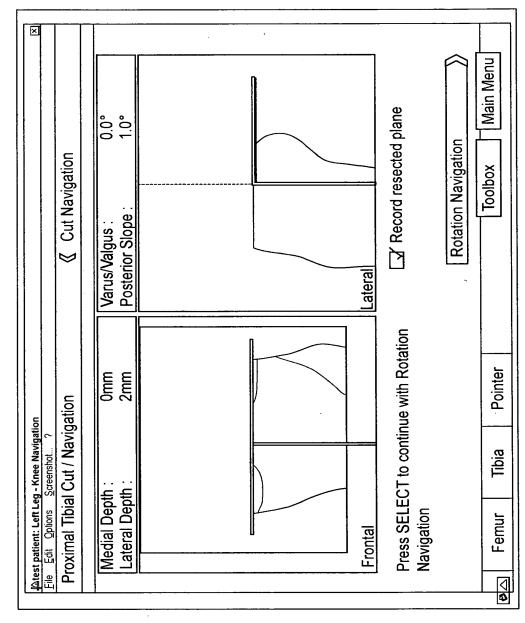Fig. 14
Sheet 14 of 14

# FIG. 14